



**POVERTY AND INCOME INEQUALITY
AMONG AGRICULTURAL HOUSEHOLDS
IN BURIRAM PROVINCE, THAILAND**

CHATPRAMON POOTICHAN

DOCTOR OF PHILOSOPHY

UNIVERSITI UTARA MALAYSIA

NOVEMBER, 2009

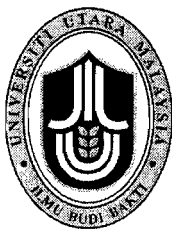
**POVERTY AND INCOME INEQUALITY
AMONG AGRICULTURAL HOUSEHOLDS
IN BURIRAM PROVINCE, THAILAND**

**A thesis submitted to the College of Arts and Sciences
in full fulfillment of the requirements for
The Degree of Doctor of Philosophy,
Universiti Utara Malaysia**

By

Chatpramon Pootichan

2009



Kolej Sastera dan Sains
(UUM College of Arts and Sciences)
Universiti Utara Malaysia

PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

CHATPRAMON POOTICHAN

calon untuk Ijazah
(candidate for the degree of)

PhD

telah mengemukakan tesis / disertasi yang bertajuk:
(has presented his/her thesis / dissertation of the following title):

**"POVERTY AND INCOME INEQUALITY AMONG AGRICULTURAL HOUSEHOLDS IN
BURIRAM PROVINCE, THAILAND"**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada : **29 Ogos 2009.**

That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:

August 29, 2009.

Pengerusi Viva:
(Chairman for Viva)

Prof. Dr. Mohd. Zaini Abdul Karim

Tandatangan
(Signature)

Pemeriksa Luar:
(External Examiner)

Asst. Prof. Dr. Nisit Panthamit

Tandatangan
(Signature)

Pemeriksa Dalam:
(Internal Examiner)

Dr. Russayani Ismail

Tandatangan
(Signature)

Nama Penyelia/Penyelia-penyelia:
(Name of Supervisor/Supervisors)

Assoc. Prof Dr. Roslan Abdul Hakim

Tandatangan
(Signature)

Tarikh:

(Date) **August 29, 2009**

**COLLEGE OF ARTS AND SCIENCES
UNIVERSITI UTARA MALAYSIA**

PERMISSION TO USE

In presenting this thesis in full fulfillment of the requirements for the degree of Doctor of Philosophy from Universiti Utara Malaysia, I agree that the University Library may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor or, in his absence, by the Dean of the Graduate Studies, College of Arts and Sciences. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholar use which may be made of any material from my thesis.

Request for permission to copy or to make other use of material in this thesis in whole or in part should be addressed to:

**Dean of Graduate Studies
College of Arts and Sciences
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman**

ABSTRACT

The purposes of this research were to investigate the characteristics and seriousness of poverty, and income distribution and to study the factors of economy, social, and human capability that could cause poverty in agriculture households in Buriram. The primary data were obtained from 568 agriculture households in Buriram. The secondary data were retrieved from the National Statistical Office, the National Economic and Social Development Board, Information Center for Rural Development, and Department of Community Development. The data were analyzed by using the descriptive statistics in order to find the relationship between independent variables and the excess income over expenditure by means of Regression and the causes of poverty by Probit Model.

The research findings revealed that the significant characteristics of agriculture households were concluded as follows: they did rice-farming as a main occupation, using natural water sources. In addition, the highest position of extra occupation was general labour. Of the sample agriculture households, the proportion of the poor was 71%, and the coefficient of the income distribution, Gini coefficient of income from nonagricultural activities is more than that of income from agricultural activities. The factors causing poverty were lacking of idea in problem solving, lacking of occupational capability, burdensome person, no extra occupations, and price variation of main agricultural products. The recommendation on poverty eradication was to systematically troubleshoot the root causes as well as to seek assistance from governmental and private sectors.

ABSTRAK

Kajian ini meneliti persoalan kemiskinan dan agihan pendapatan dikalangan keluarga petani di Wilayah Buriram, Thailand. Data yang digunakan dalam analisis kajian ini ialah data primer yang diperolehi daripada bancian yang dijalankan ke atas 568 keluarga petani di Wilayah Buriram. Selain itu, data sekunder juga digunakan dan ianya diperolehi daripada National Statistics Office, National Economic and Social Development Board, Information Center for Rural Development, dan Department of Community Development, Thailand. Bagi mencapai objektif kajian, data dianggar dan dianalisis dengan menggunakan model regresi dan model Probit.

Hasil kajian menunjukkan ciri-ciri penting keluarga petani adalah seperti berikut: mereka menjalankan penanaman padi sebagai pekerjaan utama dan menggunakan sumber air semula jadi. Pekerjaan kedua tertinggi di kalangan responden ialah buruh am. Didapati 70% daripada sampel kajian adalah miskin dan koefisien Gini bagi pendapatan dari sumber bukan pertanian adalah lebih tinggi daripada pendapatan daripada sumber pertanian. Faktor yang mempengaruhi kemiskinan dikalangan responden ialah ketiadaan idea dalam menyelesaikan masalah, tiada kemahiran dan kemampuan dalam menjalankan pekerjaan, bilangan pergantungan yang ramai dalam keluarga, ketiadaan peluang pekerjaan lain, dan ketidakpastian harga keluaran pertanian. Bagi mengatasi masalah kemiskinan, dicadangkan supaya diatasi punca-punca masalah tersebut dan juga keperluan kepada bantuan daripada sektor awam dan swasta.

ACKNOWLEDGEMENTS

This study has been made possible through the variable suggestions and support given to me by my advisor, Assoc. Prof. Dr. Roslan A. Hakim, whose wisdom and understanding are profoundly appreciated.

I would like to express my gratitude to Assoc. Prof. Dr. Mohd Dan Bin Jantan for his useful comments and insights. Thanks are also offered to Assist. Prof. Dr. Boonserm Booncharoenpol who was constantly available whenever I needed his advice, and encouragement. I am impressed with not only his expertise on this area but also his dedication to the teaching profession.

Last but not least, I am indebted to my mother, my elder sisters who have given me support and encouragement during my study and to my friends for their kind assistance and understanding.

Chatpramon Pootichan

TABLE OF CONTENTS

	Pages
ABSTRACT	iv
ABSTRAK	v
ACKNOWLEDGMENT	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xii
LIST OF FIGURES	xv
CHAPTER ONE : INTRODUCTION	1
1.0 Introduction	1
1.1 Background of the Study	1
1.2 Problems Statement	4
1.3 Objectives of the Study	5
1.4 Hypotheses of the Study	6
1.5 Significance of the Study	6
1.6 The Scope of Study	6
1.7 Operational Definition	7
1.8 Organization of the Study	8
1.9 Summary	8
CHAPTER TWO : LITERATURE REVIEW	9
2.0 Introduction	9

TABLE OF CONTENTS (Continued)

	Pages
2.1 Definition of Poverty	9
2.1.1 Income Poverty	9
2.1.2 Human Poverty	10
2.2 Measurement of Poverty	10
2.3 Measurement of Income Distribution	14
2.4 The Causes of Poverty	17
2.5 Comparing Causes of poverty with other Asian Countries	21
2.6 Summary	21
 CHAPTER THREE : RESEARCH METHODOLOGY	 22
3.0 Introduction	22
3.1 The Framework of the Study	22
3.1.1 The Method of Study	24
3.2 The Hypothesis of the Study	25
3.3 Research Design	26
3.3.1 Sources of Data	27
3.3.2 Sample of the Study	27
3.3.3 Sample Size	28
3.4 Operationalization of Variables	29
3.4.1 Dependent Variables	29
3.4.2 Independent Variables	30
3.5 Quality Assessment of Questionnaire	31

TABLE OF CONTENTS (Continued)

	Pages
3.5.1 Assessing Reliability and Validity in Social Research	33
3.6 Data Processing Procedures	37
3.7 Data Analysis	38
3.8 Summary	38
 CHAPTER FOUR : CHARACTERISTICS OF BURIRAM	 39
4.0 Introduction	39
4.1 History	39
4.2 Location	39
4.3 Topography	42
4.3.1 Natural Resources	42
4.4 Society Structure	42
4.4.1 Population	43
4.4.2 Occupation	43
4.4.3 Ethnic	43
4.4.4 Dialects	43
4.4.5 Religion	44
4.5 Economy	44
4.6 Administration	51
4.7 Public Health	51
4.8 Education	51
4.9 Public Utility	51
4.10 Transportation	51

TABLE OF CONTENTS (Continued)

	Pages
4.11 Tour spots	52
4.12 Seriousness of Poverty of Agriculture Households of Buriram	54
4.13 Income Distribution in Buriram	57
4.14 Summary	59
 CHAPTER FIVE : DATA ANALYSIS AND FINDINGS	 60
5.0 Introduction	60
5.1 Characteristics of Agriculture Households in Buriram	60
5.2 Characteristics of Poor Agriculture Households and Non-poor Agriculture Households in Buriram	83
5.2.1 Poor Agriculture Households	83
5.2.2 Non-poor Agriculture Households	85
5.3 Economic, Social, and Human – Capability Factors Leading to excess of income over expenditure in Agriculture Households in Buriram	94
5.4 Official Seriousness of Poverty of Agriculture Households in Buriram	102
5.4.1 Headcount Index of Poor Agriculture Households in Buriram	102
5.4.2 Poverty Gap Index of Poor Agriculture Households in Buriram	102
5.4.3 Severity of Poverty	103
5.5 Income Distribution of Agriculture Households in Buriram	104
5.6 Summary	106

TABLE OF CONTENTS (Continued)

	Pages
CHAPTER SIX : DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS	107
6.0 Introduction	107
6.1 Discussion	107
6.2 Conclusions	108
6.2.1 Characteristics of Agriculture Households in Buriram	108
6.2.2 Characteristics of Poor and Non – Poor Households in Buriram	110
6.2.3 Economic Factors,Social Factors,and Human – Capability Factors affecting excess of Income over expenditure of Agriculture Households in Buriram	111
6.2.4 Official Seriousness of Poverty of Agriculture Households in Buriram	112
6.2.5 Income Distribution of Agriculture Households in Buriram	113
6.3 Recommendations	114
6.3.1 Eradication of Poverty by Poor People	114
6.3.2 Government and Concerned Organizations	115
REFERENCES	117
APPENDIX	120

LIST OF TABLES

Table	Pages
1.1 The Number of All Poor People in Thailand and in Buriram 2001, and 2006	5
3.1 Structure of Districts , Sub – Districts , Villages , and Households in 5 Districts	28
4.1 Gross Domestic Product at Current Market Price by Production Origin	45
4.2 Growth Rate of Gross Domestic product at Current Market Prices of Buriram by Production Origin 2000 – 2006	46
4.3 Per Capita Gross Domestic Product And Per Capita Provincial Product at Current Market Prices : 2000 – 2006	46
4.4 Growth rate of Economy in Thailand at Current Market Price : 2000 – 2006	47
4.5 Average Monthly Income per Household in Thailand and in Buriram : 2000 – 2006	48
4.6 Average Monthly Expenditure per Household in Thailand and in Buriram : 2000 – 2006	49
4.7 Percentage of Households in Debt and Average Value of Debt per Debted Household in Thailand and in Buriram: 2000 – 2006	50
4.8 The Number of Poor People in Buriram	54
4.9 The Number and Percent of Household according to Main Occupations of Buriram 2004	54

LIST OF TABLES (continued)

Table	Pages
4.10 The Average Income per Month per Household according to Income Sources and Socioeconomic Status of Households in Buriram 2006	55
4.11 An Average Expenditure per Month per Household according to the kinds of Expenditure and Socioeconomic Status of Households in Buriram 2006	56
4.12 Average Monthly Income and Expenditure ,and Average Debt per Agriculture Debted Household in Thailand and in Buriram : 2000 – 2006	57
4.13 Share of Household Income by 5 Quintile Groups and Gini Coefficient of Household in Thailand and in Buriram : 2000 – 2006	58
5.1 Gender of Household Heads	61
5.2 Age of Household Heads	61
5.3 Race of Household Heads	62
5.4 Education of Household Heads	62
5.5 Marital Status of Household Heads	63
5.6 The number of Household Members	63
5.7 The Characteristics of Households	64
5.8 Time Spent to earn live each year	65
5.9 Extra Occupations	66
5.10 Proportion of Extra Occupation	67
5.11 Sources of Water Available	67
5.12 Working Capability	68
5.13 Problems of Occupations	69

LIST OF TABLES (continued)

Table	Pages
5.14 Time for Activities	70
5.15 Proportion of days use for working in a year	70
5.16 Price Variation [Coefficient of Variation – CV]	71
5.17 Earning Income of Household	72
5.18 Total Income of Household	73
5.19 Types of Income	73
5.20 Saving Income	74
5.21 Kinds of Cost for Agricultural Production	75
5.22 Total Cost for Agricultural Production	75
5.23 Kinds of Consumption Expenditure	77
5.24 Total Consumption Expenditure	78
5.25 Kinds of Expenditure	78
5.26 Total Expenditure	79
5.27 Kinds of Loans	80
5.28 Debt Accumulation	81
5.29 Participation in Community Activity	82
5.2.1 Comparing Various Characteristics of Factors leading to Poverty between Poor Agriculture Households and Non-poor Agriculture Households	87
5.3.1 Results of Regression	95
5.3.2 Results of Regression Analysis for Parameters	99
5.3.3 Degree of Fit Test	101

LIST OF FIGURES

Figure	Pages
3.1 Framework of Study (Step 1)	22
3.2 Framework of Study (Step 2)	23
3.3 Framework of Study (Step 3)	24
4.1 Map of Thailand	40
4.2 Map of Buriram	41

CHAPTER I

INTRODUCTION

1.0 INTRODUCTION

It starts with the background of the study, statement of the problems, objectives of the study, hypotheses of the study, significance of the study, the scope of study, the operational definition, organization of the study, and summary.

1.1 BACKGROUND OF THE STUDY

During the 1950's and 1960's, the growth of income per capita was a major tool for measuring the level of economic development. The basic philosophy at that time was that economic development would bring the wealth to the society and it was expected that the increased employment, commodity and service that resulted from economic growth could be distributed to the poor people. (The National Economic and Social Development Board, 1997 cited in Laobantao, 2006)

In the early 1970's, it was believed that economic growth could not help the poor, that is, the economic growth did not mean the decline of the poverty. This was true where poverty in many countries was still high in better economic growth situation. There was a widespread disappointment about the theories which emphasized economic growth until the international organizations such as the World Bank paid attention to the people's consumption and basic needs services. Apart from these, not only the poverty solution but also the basic supplies such as, education, public health, residential development and so forth attracted them more. (The National Economic and Social Development Board, 1997 cited in Laobantao, 2006)

Economic growth in Thailand has also been a main objective of the country development. The economic development plan was begun by the persuasion of the

The contents of
the thesis is for
internal user
only

REFERENCES

- Akita Takahiro, Lukman Affandi Rizal, and Yamada Yukino, (1999, June). "Inequality in the Distribution of Household Expenditures in Indonesia : A Theil Decomposition Analysis." *The Developing Economics Journal* XXXVII 2, p.197-221.
- Booncharoenpol Boonserm. (2006, April). "The Theory of Individual Poverty", Economics Faculty Krirk University. [Mimeographed]
- Charsombut Pradit. (1986, December). *Research Methodology in Economics*, Economics Department, Economics and Business Administration Faculty, Kasetsart University, Bangkok, p.135.
- Chiengkul Wittayakorn. (2002). Cited in Report of Poverty Situation, *Journal of National Economic and Social Development Board*, 7 (1), p.1-7.
- Chronback, L. J. (1971). *Test Validation*. in R. L. Thorndike (ed.). *Educational Measurement*. Second Edition, Washington, D. C. : American Council on Education, p.447.
- Demery David. (2005, February, 2-4). "Measuring Poverty." Notes to accompany the Training Course on Constructing the Malaysian Poverty Line Income." [Mimeographed]
- Firdausy Carunia and Tisdell Clem. (1992, June). Determinants of Rural Income and Poverty at the village Level in Bali, Indonesia, *Malaysian Journal of Economic Studies* Vol. XXIX no.1, p.19.
- Foster D. Andrew and Rosenzweig R. Mark. (2004, April). Brown University and Harvard University. "Agricultural Development, Industrialization and Rural Inequality." [Mimeographed]
- Gujarati Damodar. (1999). *Essentials of Econometrics*. Second Edition, Irwin / McGraw – Hill, p.172.
- Janvry de Alain, Sadoulet Elisabeth, and Zhu Nong. (2005, March). "The Role of Non-Farm Incomes in Reducing Rural Poverty and Inequality in China." [Mimeographed]
- Karnjanajintra Ruenriethai. (2005). *The Structural Factors Affecting the Poverty*, Research Institute of Population and Society, Mahidol University.
- Kenneth S. Bordens, Bruce B. Abbott. (2005). *Research Design and Methods A Process Approach*. Six Edition, Indiana University – Perdue University, Fort Wayne, McGraw – Hill, p.101.
- Khan Rahman Azizur and Sen Binayak. (2000). "The Structure and Distribution of Personal Income and Poverty Reduction in Bangladesh during the 1990s." [Mimeographed]

- Kronkaew Medhi. (1993). *Poverty and Inequality*. in Peter G. Warr (ed.), *The Thai Economy in Transition*, Cambridge University Press, Cambridge.
- Laobantao Taweepat. (2006). *The Causes of Poverty of Farmers : A Case Study of Krasang District, Buriram Province* Master's Thesis Department of Economics, Graduate School, Krirk University.
- National Economic and Social Development Board. (2005). *Poverty, Journal of National Economic and Social Development Board*, 10 (2), p.10-15.
- Rasch, G. (1960). *Probabilistic Models for Some Intelligence and Achievement Tests*. Copenhagen : Danish Institute for Educational Research [Expanded edition, 1980. Chicago : University of Chicago Press]
- Reardon Thomas, Berdegue Julio, Barrett B. Christopher, and Stamoulis Kostas. (2006). "Household Income Diversification into Rural Nonfarm Activities." [Mimeographed]
- Srisaowalak Oraphan. (2000). *Measuring Economics Growth Income Distribution and Poverty*. Economics Development Unit 1-5, First Edition. Bangkok, Graduate School, Sukhothai Thammathirat Open University, p.125.
- Tumkosit Udom. (1992). *Persistent Causes and Problems of Rural Family Poverty : A Case of Songkla* Ph.D. Thesis of Development Science, Department of Public Administration, National Institute of Development Administration
- Warr Peter, Sarntisart Isra. (2004, March). *Poverty Targeting in Thailand*, Australian National University and Chulalongkorn University
- World Development Report. (2008). "Agriculture for Development." Part 1, p. 26, 209-210.
- www.cdd.go.th, retrieved on December, 2005
- www.isixsingma.com/library/content/c000709a.asp, (Sample Size), retrieved on January, 2006
- www.capabilityapproach.com/pub,2007[Amin Ajab Aloysius "Capability and Human Development in Poverty Reduction"], retrieved on March, 2007
- www.cdd.go.th,2002,(basic data of poverty), retrieved on March, 2007
- www.cdd.go.th,2004,(basic data of poverty), retrieved on March, 2007
- www.eesc.orst.edu/agcomwebfile/edmat/html/em/em8743/paris, 2007(Why are some people unable to earn a living.html), retrieved on April, 2007
- www.eoearth.org/article/environmental_change_and_socioeconomic_factors_in_africa, 2007, retrieved on April, 2007

www.iadb.org/etica/documentos/lil_pover_i.pdf, 2006, July (LILIAN LINDA “Poverty as An Ethical Factor Thai Starts in the Human Mind / Paper for the Ethics Conference”), retrieved on April, 2007

[www.people.hofstra.edu.geotrans/eng/ch4en/meth4en/ch4m1en.html](http://www.people.hofstra.edu/geotrans/eng/ch4en/meth4en/ch4m1en.html),2008(Dr.Slach Brian and Dr.Rodrigue Paul Jean “Gini Coefficient and Lorenz Curve), retrieved on May, 2007

www.poverty.nesdr.go.th,2007, retrieved on May, 2007

[www.rarconline.org/working paper/wp06-05.pdf](http://www.rarconline.org/working%20paper/wp06-05.pdf),2007, retrieved on May, 2007

www.scn.org/cmp/modules/emp_pov.htm,2007 (community empowerment), retrieved on May, 2007

www.service.nso.go.th,2002,(The 2002 household socio-economic survey Buriram Provincial), retrieved on January, 2008

www.service.nso.go.th,2004,(analysis report “Factor affecting poverty of agriculture household”), retrieved on January, 2008

www.service.nso.go.th,2004,(The 2004 household socio-economic survey Buriram Provincial), retrieved on January, 2008

www.service.nso.go.th,2006,(The 2006 household socio-economic survey Buriram Provincial), retrieved on January, 2008

www.undp.org,2000,BOLTVINIK JULIO,(Poverty measurement method – an overview), retrieved on January, 2008

www.vetty.com/wpcd/wp/p/poverty.htm,2007, retrieved on March, 2008

www.wikipedia,2007(poverty), retrieved on March, 2008

www.womenaid.org/press/infor/poverty/cpm.html, 2007 (capability poverty measure/cpm), retrieved on March, 2008

www.en.wikipedia.org/wiki/income_distribution_metrics.2008, retrieved on October, 2009

www.iaabd.org/2009_iaabd_proceedings/track7k.pdf (Mutakwaba Benjamin “Government Expenditure and Income inequality in Tanzania a Police Dimension”), retrieved on October, 2009

www.ideas.repec.org/p/hhs/eijswp/0223.html.2006.March (Andersson Magnus “Determinants of Poverty in Laos PDR”), retrieved on October 2009

www.ec.europa.eu/.../env_pep_JBICs_Approach_to_Poverty_Issue_en.pdf.2001. December(Hatanaka Kunio “JBIC’s Approach to Poverty Issue”), retrieved on October, 2009